



MAY 0 2 2003 Sheet 1 of 1 RORM PTO 14490 modified) ATTY DOCKET NO. APPLICATION NO. PLOES PEPARTMENT OF COMMERCE PD-980024A 10/038,003 PATENT AND TRADEMARK OFFICE **APPLICANT** LIST OF REFERENCES CITED BY APPLICANT(S) Eroz et al. (Use several sheets if necessary) **FILING DATE GROUP** DATE SUBMITTED TO PTO: April 28, 2003 Jan. 3, 2002 2133 **U.S. PATENT DOCUMENTS** DOCUMENT \*EXAMINER FILING DATE IF DATE NAME CLASS SUBCLASS NUMBER INITIAL **APPROPRIATE** 2003/0041297 A1 27-Feb-03 1 Eroz et al. 28-May-02 SMB SNB 2 2003/0051205 A1 13-Mar-03 Eroz et al. 792 28-May-02 RECEIVED MAY 0 5 2003 Technology Center 2100 FOREIGN PATENT DOCUMENTS \*EXAMINER DOCUMENT **TRANSLATION** CLASS SUBCLASS DATE COUNTRY INITIAL NUMBER YES/NO/ABS OTHER DOCUMENT(S) \*EXAMINER AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC. INITIAL

**EXAMINER** 

Stephen M. Beker

3/15/04

**DATE CONSIDERED** 

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO 1449 (modified)

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**EXAMINER** 

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO. PD-980024A APPLICATION NO.

Eroz et al.

10/038,003

APPLICANT

FILING DATE

**GROUP** 

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Unknown

DATE SUBMITTED TO PTO: October 28, 2002

(Use several sheets if necessary)

LIST OF REFERENCES CITED BY APPLICAN

Jan. 3, 2002

U.S. PATENT DOCUMENTS	•
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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	caga 8	<b>1</b> su <b>2002</b> s	FILING DATE IF APPROPRIATE
SMS	1	5,687,095	11-Nov-97 .	Haskell et al.	TO WATER	编时内	1-Nov-94
SMB	2	5,721,745	24-Feb-98	Hladik et al.	371	43	19-Apr-96
SMB	3	5,742,612	21-Apr-98	Gourgue et al.	371	2.1	1-Jun-94
SMB	4	5,944,850	31-Aug-99	Chouly et al.	714	790	9-Dec-97
SMB	5	5,978,414	2-Nov-99	Nara	375	225	3-Jul-96
SMB	6	5,996,104	30-Nov-99	Herzberg	714	755	5-Sep-97
SMB	7	6,023,783	8-Feb-00	Divsalar et al.	714	792	15-May-97
SMB	8	6,289,486 B1	11-Sep-01	Lee et al.	714	788	30-Jul-98
,							
			FOREIGN	PATENT DOCUMENTS			

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ABS
SHS	9	0300139 A2 & A3	25-Jan-89	EPO			
SHB	10	WO 96/37050 A1	21-Nov-96	PCT			
SHS	11	DE 19520987 A1	12-Dec-96	Germany			YES
SMB	12	DE 19736653 C1	10-Dec-98	Germany			YES

## OTHER DOCUMENT(S)

AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.

DATE CONSIDERED

SNS	13	Berrou et al., Near Shannon Limit Error – Correcting Code and Decoding: Turbo Codes, 23-May-1993, Pp 1064-1070.
SHS	14	Maric, Class of Algebraically Constructed Permutations for Use in Pseudorandom Interleavers, Electronics Letters, Vol. 30, No. 17, 18-Aug-1994, Pp 1378-1379.
SHE	15	Divsalar et al., "Turbo Codes for PCS Applications," 18-Jun-1995, Pp 54-59.
SE	16	Divsalar et al., "Multiple Turbo Codes," IEEE Proceedings of the Military Communications Conference, San Diego, CA, Vol. 1, 6-Nov-1995, Pp 279-285.
SHS	17	Benedetto et al., "Unveiling Turbo Codes: Some Results on Parallel Concatenated Coding Schemes," IEEE Transactions on Information Theory, Vol. 4, No. 2, 1-Mar-1996, Pp 409-428.
SHE	18,	Benedetto et al., "Design of Parallel Concatenated Convolutional Codes," IEEE Transactions on Communications, Vol. 44, No. 5, 1-May-96, Pp 591-600.
SMS	19	Lee et al., "Turbo Code and Its Performance," TIA TR45.5.4, 8-Dec-97.
SHB	20	Eroz et al., "RTT Text for Turbo Codes," ETSI SMG2UMTS-L1, Oslow, Norway, 1-Apr-98.
SE	21	Eroz et al., "FER and BER Comparisons of Turbo versus Convolutional Codes," ETSI SMG2UMTS-L1, Paris, France, 28-Apr-1998.

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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
2 MB	22	6,332,209 B1	18-Dec-01	Eroz et al.	714	790	20-Aug-99
SMS	23	6,334,197 B1	25-Dec-01	Eroz et al.	714	701	16-Aug-99
SHB	24	6,430,722 B1	6-Aug-02	Eroz et al.	714	755	22-Jan-99
SHS	25	2002/0083395 A1	27-Jun-02	Eroz et al.	714	790	18-Dec-01
SHB	26	2002/0087923 A1	4-Jul-02	Eroz et al.	714	702	19-Dec-01
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			FOREIG	ON PATENT DOCUMENTS			
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ABS
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*EXAMINER INITIAL			AUTH	OR, TITLE, DATE, PERTINENT PAGES	S, ETC.		
SHB	27	Lee et al., "Third Genera Symposium on Personal	tion Wireless Te	chnologies – Expectations and ile Radio Communications, Bos	Realities," 9 <sup>th</sup> ston, MA, 8-Se	IEEE Internat p-1998, Vol.	tional 1, Pp 79-83.

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

Integration, Sydney, Vol. 6, 8-Nov-1998, Pp 3525-3529.

Ho et al., "Improving the Constituent Codes of Turbo Encoders," IEEE Globecom 1998, The Bridge to Global

DATE CONSIDERED

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**EXAMINER** 

FORM PTO 1449 (modifie	· 1	1 1 2002 37	ATTY DOCKET NO. PD- 980024A	1	APPLICATION NO. 10/038	003	
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	OTHER DO	CUMENT(S) (Incl	uding Author, Title, Date, Pertinent Pag	es, Etc.)			
SNIS	Barbulescu et al. 30, 1995, pp. 53		patible Turbo Codes," Elect	ronics l	_etters, Vol. 31, i	No. 7, March	
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ATTY DOCKET NO. PD-980024A

January 03, 2002

APPLICATION NO.

10/038,003

**APPLICANTS** 

Mustafa Eroz et al.

FILING DATE

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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

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*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE I
SHZ	5,983,384	9 Nov. 1999	Ross	714	755	21 April 1997
SHS	6,088,387	11 Jun. 2000	Gelblum et al.	375	222	31 Dec. 1997
SHB	6,094,427	25 Jun. 2000	Yi	370	331	7 Jul. 199

**EXAMINER** DATE CONSIDERED

FOREIGN PATENT DOCUMENTS
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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ABS
SHE	WO 98/48517	29 Oct. 1998	WIPO			
SHS	DE 197 36 653	10 Dec.	Germany			No.
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					OCT 0 8	2002
				Ted	nology C	enter 2100

	OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)
SE	Acikel. O.F. et al., "High Rate Turbo Codes for BPSK/QPSK Channels", ICC '98 1998 IEEE International Conf. On Communications, June 7-11, 1998, pp. 422-427, vol. 1.
SIB	Riedel, S., "Symbol-by-Symbol MAP Decoding Algorithm for High-Rate Convolutional Codes That Use Reciprocal Dual Codes", IEEE Journal on Selected Areas in Communications., vol. 16, No. 2, Feb. 1, 1998, pp. 175-185.
SHB	Rowitch, D.N. et al., "Rate Compatible Punctured Turbo (RCPT) Codes in a Hybrid FEC/ARQ System", 1997 IEEE Global Telecommunications Mini-Conference, vol. 4, Nov. 1999, pp. 55-59.
SYS	Chan et al., "An Adaptive Hybrid FEC/ARQ Protocol Using Turbo Codes", 1997 IEEE 6 <sup>th</sup> International Conference on Universal Personal Communications, Oct. 1997, pp. 541-545.

**EXAMINER** DATE CONSIDERED

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